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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,955	02/23/2000	Charlie Ghahremani	37072/JEC/X2	3897
35114	7590	10/21/2004	EXAMINER	
ALCATEL INTERNETWORKING, INC. ALCATEL-INTELLECTUAL PROPERTY DEPARTMENT 3400 W. PLANO PARKWAY, MS LEGL2 PLANO, TX 75075			FERRIS, DERRICK W	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/511,955

**Applicant(s)**

GHAHREMANI ET AL.

**Examiner**

Derrick W. Ferris

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 11-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. **Claims 11-21** as amended are still in consideration for this application. Applicant has amended claims **11-21**. Applicant has canceled claims 1-10.
2. Examiner **withdraws** the 112-second paragraph rejection since applicant canceled the relevant claims.
3. Examiner **withdraws** the claim objection since applicant has made the necessary corrections.
4. Examiner does **not withdraw** the obviousness rejection to *Chau* for Office action filed **05/10/04**. In addressing applicant's arguments in the response filed **08/10/04**, examiner notes that a first protocol at a physical layer (e.g., local physical port) and a second protocol at a data link layer (e.g., logical port) still reads on the claims, see e.g., a conventional path in figure 7 where an ingress port connects the telephone line 140 and an egress port connects the network 130. As the layers are different so are the protocol types. Examiner has **withdrawn** the rejection for the claims which further recite that both the first and second protocols are at layer 2.
5. Examiner does **not withdraw** the obviousness rejection to *Dobbins* for Office action filed **05/10/04**. In addressing applicant's arguments in the response filed **08/10/04**, *Dobbins* e.g., teaches that the network layer chooses any of the allocated Framing objects based on the type of protocol received at the interface, see e.g., column 13, lines 20-37. For example, see figure 5 where the framing objects 51 are at the datalink layer 46. In particular, framing objects 51 are based on standard data link framing formats, see e.g., column 12, lines 55-67. Thus see e.g., figure 3a where a first interface (e.g., an ingress port) and a second interface (e.g., an egress port)

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are shown in figure 3a. Thus each interface can support a different layer 2 protocol depending on the device connected to that interface.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 11-16** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,509,123 A to *Dobbins et al.* (“*Dobbins*”).

As to **claims 11-16**, *Dobbins* discloses a distributed autonomous object architecture for network layer routing. For example, see figure 4 in reference to column 7, lines 30-40. In reference to the claim limitation, see section B.4 on Framing in *Dobbins*. In particular, and in reference to figure 5, framing objects are instantiated for each type of framing a protocol framing engine supports and are bound to the interface object to which the forwarding engine is attached, see e.g., column 12, lines 52-54. Thus an interface supports more than one frame type of data link layer. What is of particular interest is column 13, lines 5-50 which teaches although the framing objects are bound to the interface and media drivers when they are constructed, an interface supports more than one framing object since the network layer protocol can select and use any of the allocated Framing Objects to register to receive and transmit network layer packets. For example, one physical Ethernet interface that supports IP can support 802.2 LLC and SNAP for the same interface which are two different data link protocols. Thus by

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definition these protocols are dynamically bonded on a session-by-session basis (one session for each IP station). Examiner would like to point out that if the framing protocol is not identified on the interface then communication cannot take place. In addition, the first and second protocols are different since the framing object is supported based on the client end device such that either the same type or different types of data link or layer 2 protocols are supported for each interface meeting the limitation.

8. **Claims 11 and 13** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,233,232 to *Chau et al.* ("*Chau*").

As to **claims 11 and 13**, *Chau* discloses general means for identifying a protocol, dynamically bonding the identified protocol, and adding encapsulation information. Specifically, *Chau* discloses a modular architecture for connecting a plurality of network access servers 100, 120, and 130 together over network 130. Examiner notes for this rejection a switch is a network access server. Shown in figure 4 is kernel 400 that comprises drivers at the physical layer which setup a connection with the data-link layer. Examiner specifically notes that a PPP connection is established over an Ethernet interface, T1 interface, or ISDN interface as shown in figure 4 of *Chau* and in relation to applicant's specification on page 44, lines 30-35 with respect to PPP being generally "bonded" to at least ISDN and T1. Examiner notes the general bonding is further illustrated in figures 6 and 7 of *Chau* with respect to setting or establishing a data connection path (i.e., a conventional data path) [columns 9-10]. In addition, examiner notes a broad but reasonable interpretation of a PIF object as defined by applicant in applicant's specification on page 3, lines 1-5. Thus taught specifically by the reference is

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that when a client dials into the network access server (i.e. switch) across one of the telephone lines, a physical port is bound to a logical port [column 9, lines 60-65].

Examiner notes that the routing engine 108, 112, and 128 is used to further route or forward the data block to a destination address.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 17-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,509,123 A to *Dobbins et al.* ("*Dobbins*").

As to **claims 17-21**, *Dobbins* does not specifically teach PPP, PPPoE, PPP/FR, L2TP, and L2F. However, examiner notes that such teachings are obvious in light of the teachings. Thus examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitations of PPP, PPPoE, PPP/FR, L2TP, and L2F. In particular, the clear motivation is provided at column 12, lines 62-67 which teaches that standard data link formats are supported in general and more particularly IEEE and IETF framing formats are supported. Specifically, PPP is RFC 1661, PPPoE is RFC 2516, L2TP is RFC 2662 and L2F is RFC 2341 which are all IETF specifications which are IETF documents.

*Conclusion*

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris  
Examiner  
Art Unit 2663

  
DWF

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
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10/12/04